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THE FARM INDEX

U.S.
DEPARTMENT
OF
AGRICULTURE
ECONOMIC
RESEARCH
SERVICE

AUGUST 1967

also in this issue:

*Making the Produce
Terminal Produce*

*Turkish Dilemma —
To Till or Trade?*

*Madison Avenue,
Farm Style*

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PROCUREMENT SECTION
CURRENT SERIAL RECORDS

ECONOMIC TRENDS

ITEM	UNIT OR BASE PERIOD	'57-'59 AVERAGE	1966		1967		
			YEAR	JUNE	APRIL	MAY	JUNE
Prices:							
Prices received by farmers	1910-14=100	242	266	264	245	252	255
Crops	1910-14=100	223	235	240	223	221	227
Livestock and products	1910-14=100	258	292	284	264	279	279
Prices paid, interest, taxes and wage rates	1910-14=100	293	334	333	341	342	343
Family living items	1910-14=100	286	315	314	318	320	321
Production items	1910-14=100	262	285	283	288	289	290
Parity ratio		83	80	79	72	74	74
Wholesale prices, all commodities	1957-59=100	—	105.9	105.7	105.3	105.8	106.3
Industrial commodities	1957-59=100	—	104.7	104.9	106.0	106.0	106.0
Farm products	1957-59=100	—	105.6	104.2	97.6	100.7	102.4
Processed foods and feeds	1957-59=100	—	113.0	112.0	110.0	110.7	112.5
Consumer price index, all items	1957-59=100	—	113.1	112.9	115.3	115.6	—
Food	1957-59=100	—	114.2	113.9	113.7	113.9	—
Farm Food Market Basket: ¹							
Retail cost	Dollars	983	1,100	1,094	1,071	1,072	—
Farm value	Dollars	388	442	436	399	399	—
Farm-retail spread	Dollars	595	658	658	672	673	—
Farmers' share of retail cost	Per cent	39	40	40	37	37	—
Farm Income:							
Volume of farm marketings	1957-59=100	—	121	107	91	93	110
Cash receipts from farm marketings	Million dollars	32,247	43,219	3,163	2,679	2,739	3,200
Crops	Million dollars	13,766	18,384	1,189	824	743	1,300
Livestock and products	Million dollars	18,481	24,835	1,974	1,855	1,996	1,900
Realized gross income ²	Billion dollars	—	49.7	49.5	—	—	49.1
Farm production expenses ²	Billion dollars	—	33.3	33.1	—	—	34.5
Realized net income ²	Billion dollars	—	16.4	16.4	—	—	14.6
Agricultural Trade:							
Agricultural exports	Million dollars	4,105	6,855 ³	551	524	544	—
Agricultural imports	Million dollars	3,977	4,492 ³	387	363	338	—
Land Values:							
Average value per acre	1957-59=100	—	150 ⁴	—	157 ⁵	—	—
Total value of farm real estate	Billion dollars	—	171.1 ⁴	—	179.7 ⁵	—	—
Gross National Product: ²							
Consumption ²	Billion dollars	457.3	743.3	736.7	—	—	775.3
Investment ²	Billion dollars	294.2	465.9	461.6	—	—	488.9
Government expenditures ²	Billion dollars	68.0	118.0	118.5	—	—	106.1
Net exports ²	Billion dollars	92.4	154.3	151.2	—	—	175.2
	Billion dollars	2.7	5.1	5.4	—	—	5.2
Income and Spending: ⁶							
Personal income, annual rate	Billion dollars	365.3	584.0	581.1	616.5	618.2	621.9
Total retail sales, monthly rate	Million dollars	17,098	25,306	25,394	25,918	25,980	26,050
Retail sales of food group, monthly rate	Million dollars	4,160	5,927	5,975	5,985	5,984	—
Employment and Wages: ⁶							
Total civilian employment ⁷	Millions	64.9	72.9	72.7	73.9	73.3	74.1
Agricultural ⁷	Millions	6.0	4.0	4.0	3.9	3.7	3.7
Rate of unemployment ⁷	Per cent	5.5	3.8	3.9	3.7	3.8	4.0
Workweek in manufacturing	Hours	39.8	41.3	41.3	40.5	40.4	40.2
Hourly earnings in manufacturing, unadjusted	Dollars	2.12	2.71	2.71	2.80	2.81	2.81
Industrial Production: ⁶							
	1957-59=100	—	156	157	156	156	155
Manufacturers' Shipments and Inventories: ⁶							
Total shipments, monthly rate	Million dollars	28,745	44,037	44,125	43,943	44,762	—
Total inventories, book value end of month	Million dollars	51,549	77,897	71,949	80,330	80,584	—
Total new orders, monthly rate	Million dollars	28,365	45,182	45,833	43,849	45,649	—

¹ Average annual quantities of farm food products purchased by urban wage-earner and clerical-worker households (including those of single workers living alone) in 1960-61—estimated monthly. ² Annual rates seasonally adjusted second quarter. ³ Preliminary. ⁴ As of March 1, 1966. ⁵ As of November 1, 1966. ⁶ Seasonally adjusted. ⁷ Series revised beginning January 1967, giving data for persons 16 years of age and older.

Sources: U.S. Dept. of Agriculture (Farm Income Situation, Marketing and Transportation Situation, Agricultural Prices, Foreign Agricultural Trade and Farm Real Estate Market Developments); U.S. Dept. of Commerce (Current Industrial Reports, Business News Reports, Advance Retail Sales Report and Survey of Current Business); and U.S. Dept. of Labor (The Labor Force and Wholesale Price Index).

THE AGRICULTURAL OUTLOOK

Acreage for harvest this year is the largest since 1960 and 7 per cent above last year's. Crop prospects, too, are slightly better, with new records in sight for wheat, soybeans and corn.

WHEAT BIN REPLENISHED

The 1967 wheat harvest is estimated, as of July 1, at a record 1,596 million bushels, 285 million above that in 1966. The previous record was 1,457 million bushels in 1958.

With a July 1, 1967 carryover of about 400 million bushels and a 1.6 billion crop, 1967/68 supplies would be 2 billion bushels, compared with 1.85 billion a year ago. This would be the first increase in wheat supplies since 1960.

Secretary Freeman has announced a minimum export target of 750 million bushels for 1967/68. (Exports in 1966/67 are now estimated at 735 million bushels, with commercial shipments setting a new record of about 435 million.)

Domestic use is likely to be around 725 million—slightly above a year earlier—with some increase expected in wheat feeding.

A wheat crop of the indicated size would provide for domestic and export requirements in the 1967/68 season and permit some buildup in wheat stocks at the end of the season.

The season-average farm price in 1966/67 was \$1.63 per bushel, 38 cents over the loan rate. Because of larger supplies, both at home and abroad, 1967/68 prices probably will not be as high but they should continue above loan levels. Marketing certificate payments are expected to add around \$700 million to wheat producers' returns.

The 1968 national acreage allotment, currently set at 59.3 million acres, is 13 per cent smaller than the 68.2-million-acre allotment for 1967.

The national average price support rate continues at \$1.25 per bushel and other program provisions are virtually unchanged. Participants in the 1967 program received marketing certi-

cate payments of \$1.36 per bushel on 35 per cent of their production.

WHAT'S AHEAD FOR FOREIGN AID?

Food is the quickest way to alleviate hunger. But in the long run, food aid alone does not usually encourage developing countries to build up their economies.

The United States and other industrialized nations that assist the underdeveloped part of the world are therefore placing more and more emphasis on agricultural development within the countries they are aiding.

So far, foreign aid programs have consisted to a large degree in simply sending food and fiber to needy areas.

Now, there are signs that future aid programs of the U. S. and other donor countries will be putting more accent on capital aid and technical assistance.

At the same time, steps are also being taken to relieve the U. S. from some of the foreign aid burden it has been carrying.

The following examples point up these trends.

The Agency for International Development (AID) recently allocated \$746 million for capital and technical assistance to foreign agriculture in fiscal year 1968, beginning July 1, 1967. This amount is almost double that allocated in 1966.

New Grain Arrangement

At the conclusion of the Kennedy Round trade negotiations, participating GATT countries agreed on the provisions to be incorporated into a new World Grain Arrangement that would enable the U. S. to share its food aid responsibilities with other developed nations.

Seventeen of the participating countries agreed tentatively to provide 4.5 million metric tons of grain annually as food aid to the developing countries.

Of the exporting countries, the United States will provide 1.9 million tons, or 42 per cent of the total; Canada will provide another 11 per cent; Australia, 5 per cent; and Argentina, 1 per cent.

The six EEC countries as a group will contribute another 1.0 million tons, or 23 per cent of the total.

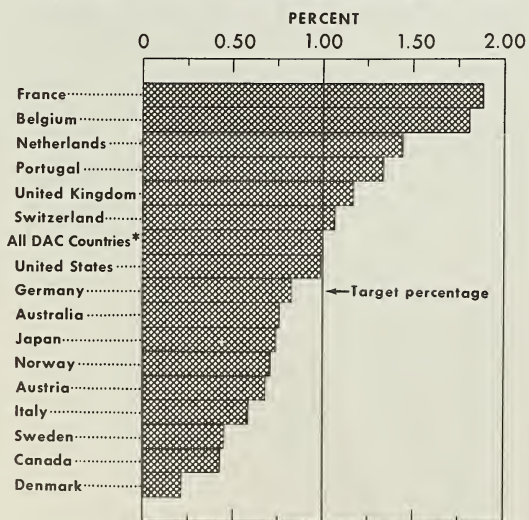
The remaining importing countries to provide grain aid are the United Kingdom, Switzerland, Sweden, Denmark, Norway, Finland, and Japan. Other countries are expected to contribute. Contributions will be primarily wheat; but feed grains may be included.

The 1 Per Cent Target

Development of any enterprise requires capital, and it's no less true of foreign agricultural development.

Thus, the Development Assistance Committee

NET PUBLIC AID AND PRIVATE CAPITAL TO LESS-DEVELOPED COUNTRIES AS A PERCENTAGE OF NATIONAL INCOME, 1965



*DEVELOPMENT ASSISTANCE COMMITTEE OF THE OECD.
SOURCE: ORGANIZATION FOR ECONOMIC COOPERATION AND DEVELOPMENT.

(DAC) representing 16 country members of the Organization for Economic Cooperation and Development (OECD) has recommended that each of its members contribute a net 1 per cent of its national income to economic aid for the developing countries.

The U. S. contribution in recent years has approximated the 1 per cent goal. Six countries currently exceed the target, and nine are below it.

Many of the DAC countries have policies to encourage private investment in the developing countries, but the U. S. incentive program is the most comprehensive. Under its Investment Guarantee Program, expanded substantially in 1965, U. S. investors have war and expropriation coverage in 73 less-developed countries.

Future private investments will depend largely on government policies both at home and abroad.

Expanded World Food Program

The World Food Program (WFP) was extended for a 3-year period 1966-1968, to a target of \$275 million.

The target is more than double that of the original 3-year program launched experimentally in 1963 by the Food and Agriculture Organization of the United Nations.

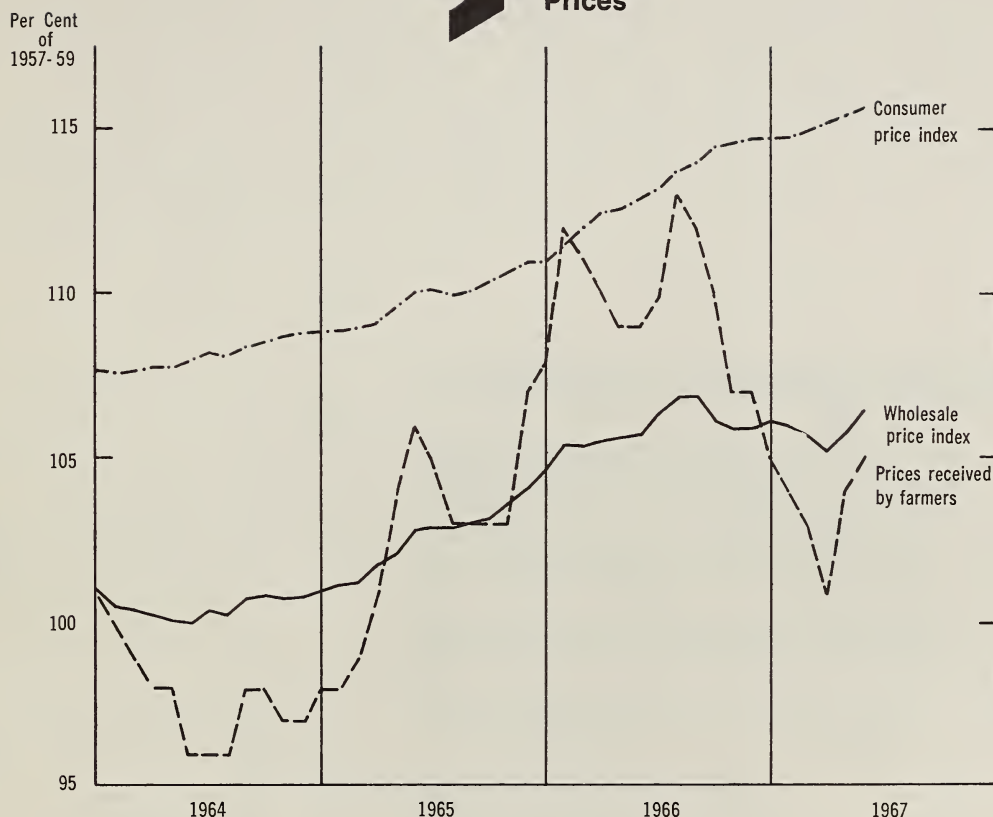
The program was designed originally to provide \$100 million in commodities, services and cash to meet emergency food needs and to help implement projects for economic and social development in the less-developed countries. By the end of December 1965, over 80 developed and less-developed nations had pledged \$94 million toward the \$100 million goal.

Under the expanded program, over 70 countries pledged \$216 million by the end of April 1967. The U. S. is pledging matching contributions of commodities up to \$92 million. Canada, second largest donor, is contributing \$28 million, or 10 per cent of the goal.

However, since other countries have been tardy in coming through with their pledges, the actual resources available to the WFP through April totaled only \$167 million.



Our Farmers' Prices



Prices received by farmers tend to follow the same broad trends as prices of other commodities and services over the long run. But farmers' prices fluctuate much more than prices at wholesale and retail levels.

Since the end of World War II, most of the changes in wholesale and retail prices have been up, while for farm products the losses have outnumbered the gains.

The consumer price index increased in 17 of the last 20 years, the wholesale index in 15, but the index of prices received by farmers rose in only 8 years.

The changeability of farmers' prices is one of the main reasons for the variability of their income.

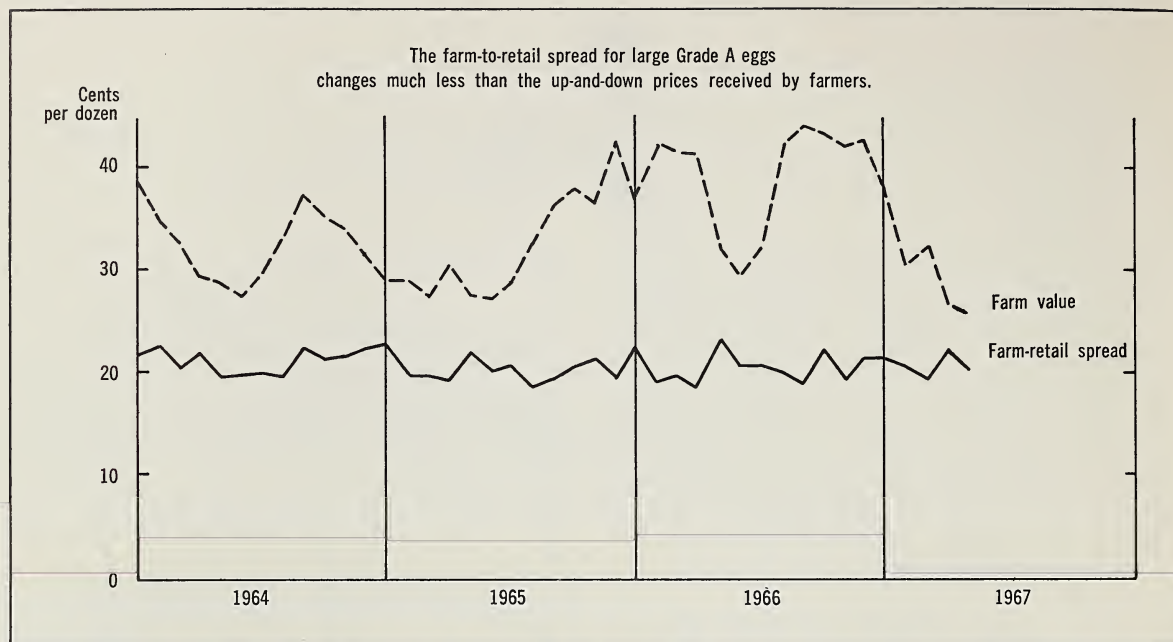
The Chain Reaction

The supply of a commodity on the market affects the price farmers receive. And the price farmers get affects the quantity they will produce in the future, and thus the price they will receive.

When the price of a product is good, a farmer tends to produce more of it as soon as he can step up production. If the price is relatively low, he's likely to cut back.

Farmers also shift resources among enterprises as commodity prices change in relation to each other or to the costs of production. Output of hogs, eggs and poultry, for example, depends largely on the way prices of these products compare with feed prices.

While farmers, as individuals, take prices into account when planning their own production, they have little control over na-



tionwide output. Consequently, total production tends to rise or fall more than is desirable for stable and equitable prices.

One of the main reasons for this is the way our farms are operated. Of our nation's 3.1 million farms, over 95 per cent are family-sized operations. Farmers have no organized way of their own to regulate national output, except through Government programs such as acreage, allotments or marketing agreements and orders.

The output of a single producer (with the possible exception of certain highly specialized operations) is not big enough to affect the price he receives. It usually is to his advantage to sell as much as he can regardless of the price he gets.

Nature, Too, Conspires

There are other reasons why it is difficult for farmers to adjust production to price:

—*The weather.* The caprice of sun and rain, pest and disease may cause a farmer to produce considerably more or less than he had planned.

—*The time lag.* Months or years must pass from the time a farmer makes a production decision until he markets the commodity. It takes about a year to increase or decrease output of field crops; three years to increase marketings from a beef herd; and anywhere from three to nine years to harvest the first crop from a new orchard.

—*New technology.* Technological innovations in farming have brought a persistent rise in yields, regardless of prices.

These things are largely responsible for the erratic rise and fall in production of many farm commodities. Over the last decade, output fluctuated, from lowest to highest, within the following ranges: Sorghum grain 50 per cent, apples 28 per cent, wheat 53 per cent, pig crop 26 per cent, and oranges 92 per cent.

An increase or decrease in production tends to push prices in

the opposite direction.

The Seasonal Seesaw

Output of farm products also varies within a year in cadence with the biological rhythm of plants and animals. Most field crops are planted in the spring and harvested in the fall. Thus, most of the supply becomes available within a few months.

Milk output at its peak in June is usually about a fourth above its November low. Most of the pig crop is farrowed in April and May and marketed in October and November.

Prices show seasonal patterns opposite to production.

Generally, seasonal price variation is least for storable commodities such as grain; most for perishable fruits and vegetables. The monthly high for wheat, for example, typically tends to be about 7 per cent above the monthly low. For all oranges the difference is 52 per cent.

Ranges for other commodities: Choice steers 8 per cent, corn 18, milk 19, eggs 23, hogs 27, potatoes 32, fresh vegetables 34, and fresh apples 51 per cent.

Low Man On The Totem Pole

Consumers express their demand for farm products by the way they spend their money.

Demand in farm markets is

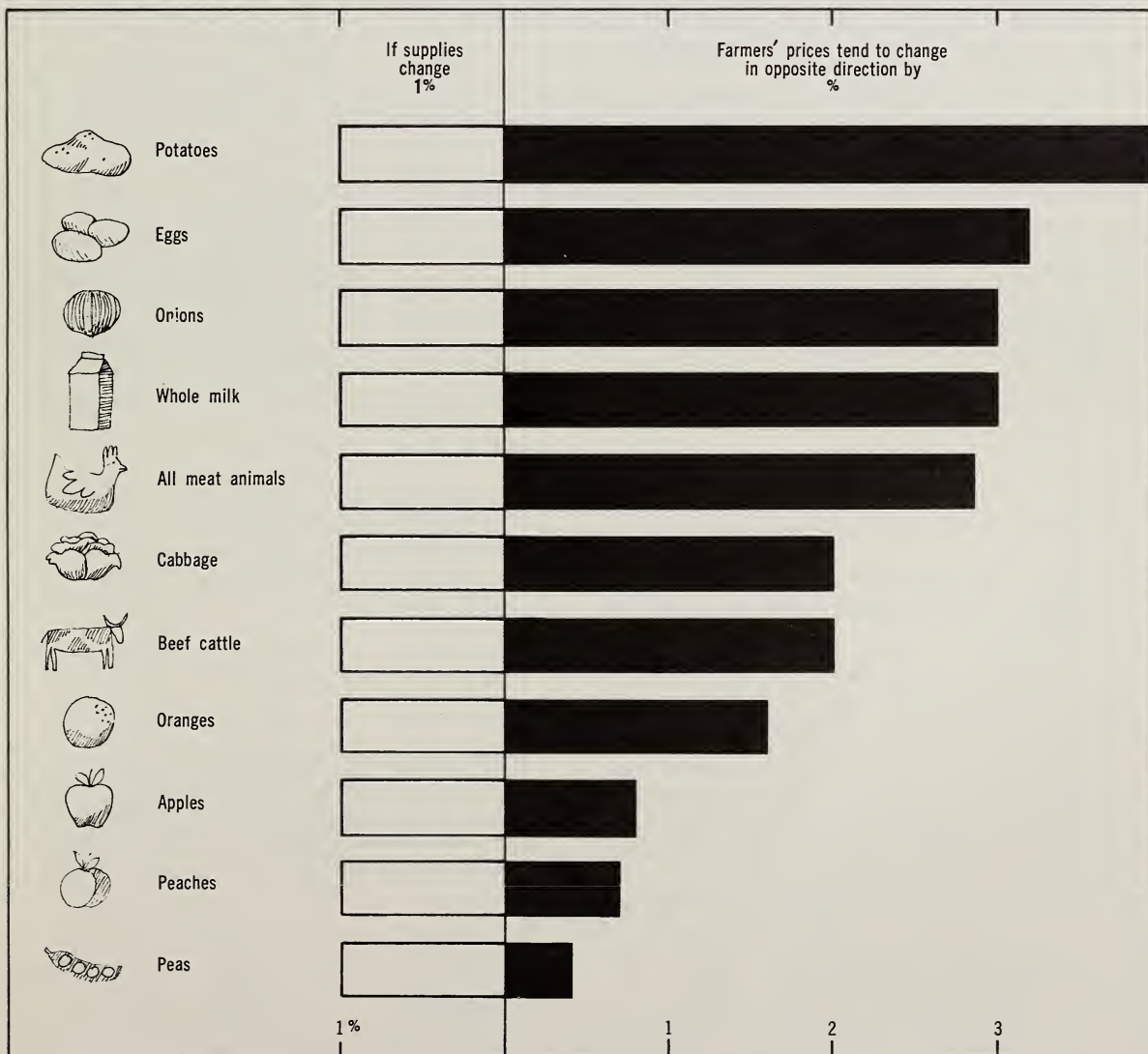
largely determined by prices consumers are willing to pay, minus processing, transporting, storing and distribution charges.

How much of the retail price goes for marketing depends largely on the processing and other services required to put the product into the form used by consumers.

The farm-retail spread for shell eggs, for example, amounts to about 35 per cent of retail prices, while that for corn flakes is about 90 per cent.

During the postwar period, marketing costs for foods produced on U.S. farms have risen slowly but steadily. But the value at the farm level has decreased since 1947-49.

Marketing spreads are mainly determined by the costs of marketing agencies: Wages and salaries, freight rates, utility rates, rent, and packaging materials. These costs usually are stable in the short-run and are affected little by the conditions that determine farm prices.



The slowness with which marketing margins change means that if, in the short-run consumer demand changes or farmers supply more or less, impact will be greater on farm markets than retail.

For example, a food item costs 50 cents per pound and the marketing margin accounts for 70 per cent of the retail cost, and the farm price 30 per cent—or 15 cents. Suppose a large supply of a competing product causes demand to weaken and the retail price is reduced 5 cents, or 10 per cent. The margin does not shrink, so the entire 5 cents is passed through to the price received by farmers, which drops from 15 cents to 10 cents. This is over 33 per cent—more than three times the percentage drop at retail.

The One-Way Stretch

Consumers tend to use about the same amounts of most foods per person year in and year out.

They won't eat much more if the price falls, nor much less if the price goes up—although price differences may influence their choices among similar foods.

In other words, it takes relatively large increases or decreases in price to persuade consumers to change their eating habits.

Net effect of this is that a given percentage change in the supply of most farm products results in a much larger inverse change in price. Economists call this phenomenon an "inelastic demand." The degree of price elasticity of demand varies considerably by commodities.

While consumers are slow to change their food habits, they do change over the years. Consumption of potatoes, cereals, and eggs has declined, while use of beef, poultry, and processed fruits and vegetables has increased. Prices have reflected these changes in demand.

Consumers also spend a fairly stable proportion of their income for food from year to year. The percentage has ranged from 21 to

18 per cent over the last decade and has declined slowly as incomes have gone up more than cost of food.

Because of the stability of the consumer's food habits, the growth in population is the most important factor affecting the total domestic demand for food, though changes in consumer income also exert some influence.

Foreign demand also has been growing, particularly in the last decade when commercial agricultural exports rose from \$2.8 billion to \$5.1 billion, reflecting growing population and rising income abroad.

Exports financed under Government programs also have been high, but most have been made out of stocks acquired under price support programs.

Demand for most farm products grows only slowly and is highly inelastic in the short run; supplies fluctuate widely, from season to season and year to year. The combination accounts for most of the yo-yo behavior of the prices farmers receive. (1)

The Squeeze

The changeability of farm prices hits the farmer where it is most noticeable—in his pocketbook.

Prices of the goods and services used in farm production have increased every year but two since 1950.

The quantity of items needed for production also has increased steadily as the result of agriculture's technological revolution. As a result, the cost of farming has set new records almost every year. Production expenses now take more than \$2 out of every \$3 of gross farm income. Under these conditions, even a small decline in the prices a farmer receives can have a decided effect on his net income. For example, a farmer ends up a year's operation with the following:

Gross income	\$15,000
Production expenses	10,000
Net income	\$ 5,000

The next year the prices he receives for products sold drop 2 per cent while prices of production items increase the same percentage. Assuming no change in the quantities sold and bought, his income would be:

Gross income	\$14,700	— 2 per cent
Production expenses	10,200	+ 2 per cent
Net income	\$ 4,500	—10 per cent

When production expenses are going up, a price increase raises net income less than a price decrease of the same size reduces it. Using the above example, except that prices received are assumed to increase 2 per cent, net income would be:

Gross income	\$15,300	+2 per cent
Production expenses	10,200	+2 per cent
Net income	\$ 5,100	+2 per cent

Burgeoning Beef

Beef without a doubt is America's favorite meat. And beef is easily our farmer's biggest cash earner.

In 1940, per capita consumption of beef and veal averaged 62 pounds. Last year it was 108 pounds.

As for returns to the farmer, cattle and calves account for more than a fifth of total receipts from U. S. farming. Dairy products, the nearest competitor, account for only around an eighth.

The tremendous upsurge in cattle feeding is both cause and effect of the bigger beef market.

Cattle feeding not only gives more beef per animal, but improves the quality. Thus in 1966 about 60 per cent of cattle slaughtered were marketed out of feed lots, in contrast to about 35 per cent back in 1940. (2)

Incomes of Most Western Livestock Ranchers Higher Than 1965 Levels

Although 1966 was a year in which production conditions varied considerably on western livestock ranches, prices received and net incomes were generally above 1965 levels, except on Northern Plains sheep ranches. Range conditions were well below a year earlier and below normal for cattle and sheep ranches in the Northern Plains, cattle ranches in the Intermountain area and sheep ranches in Utah-Nevada.

Here are a few details of the 1966 costs and returns picture for western ranchers:

Cattle ranches. In the Southwest, where range conditions were fairly good, net ranch incomes averaged \$7,293—about 19 per cent higher than in 1965. Net ranch output last year rose 1 per cent; prices received, 12 per cent; and prices paid, 8 per cent.

In the Northern Plains and Intermountain Region, however, range conditions were substantially poorer than in 1965. As a result, net ranch output in the two regions dipped 6 per cent and 4

per cent, respectively. Even so, net ranch income in the Northern Plains averaged \$7,549—nearly the same as in 1965. Prices received were up 11 per cent; prices paid, 6 per cent. In the Intermountain Region, net incomes were about \$9,982—13 per cent higher than in 1965. Prices received rose 14 per cent while prices paid gained only 4 per cent.

Sheep ranches. Ranch output in the Southwest (where range conditions were good) rose 13 per cent over 1965 levels. Ranchers' net incomes were up 26 per cent to \$11,778; prices received were up 6 per cent and prices paid, 7 per cent.

In Utah-Nevada, production was about the same as in 1965; prices received and prices paid each rose 2 per cent. Net ranch incomes, at \$17,872, were about 2 per cent lower than in 1965.

Substantially poorer range conditions in the Northern Plains reduced ranch output in 1966 by 3 per cent under 1965. Prices received were also down 1 per cent; prices paid, up 5 per cent. As a result, net ranch income averaged \$13,217—10 per cent less than in 1965. (3)

Fertilizer, More Efficient Use of Labor Bring Near Record Total Farm Output

Once again U.S. farmers have pulled a rabbit out of a hat.

From three million fewer acres than 1965 and nearly 30 million fewer than 1956, they have produced the second largest total crop on record.

Total farm output, including livestock production, though 2 per cent less than 1965—the high year—was 13 per cent above the 1957–59 average.

The 1966 crops were harvested from a total of 295 million acres, matching 1962's acreage—the lowest on record.

Among individual crops setting new highs were soybeans, rice, grain sorghum and peanuts.

Hire Hike

Machine hire, custom and contract work—three tactics to cut equipment costs. But there's a price tag attached to these services—and it came to \$869 million in 1964 (the year of the last agricultural census). Back in 1959, expenditures for such work amounted to only \$805 million.

Per farm, expenditures for machine hire, custom and contract work rose about 30 per cent between 1959 and 1964—from \$405 to \$530.

Approximately 1.6 million farms—or half the U.S. total—reported using these services in 1964. Though this was 17 per cent fewer than the number reporting similar work in 1959, the total number of farms in the United States declined 15 per cent during 1959–64—which accounts for a good part of the drop. (4)

But only two crops—as a group—set new production records in 1966. Output of fruits and nuts was 4 per cent higher than in 1965. For oil crops (soybeans and peanuts) it was up 11 per cent.

Total feed grain production remained unchanged from 1965 with food grains up slightly.

Meat animal production was nearly 5 per cent higher than in 1965 due to a 6 per cent increase in hog production and a 3 per cent rise in cattle and calf production.

The combined output of poultry and eggs increased nearly 7 per cent. Output of eggs, broilers and turkeys was the largest on record.

Use of nitrogen, phosphorus and potassium fertilizer increased 12.8 per cent in the United States and Puerto Rico with the greatest gains in the Northern Plains region—a 32 per cent increase in North and South Dakota, Nebraska and Kansas.

Labor on U.S. farms totaled about 7.5 billion man-hours in 1966. This was lower than any previous year and 5 per cent less than in 1965. Crops took 48 per cent of the man-hours; livestock 38 per cent and office and maintenance jobs the balance. (5)



Industrialization, Pure and Simple, Won't Relieve Ozarks Unemployment

Industry has been hailed as the panacea for depressed areas of rural America. Although industrialization frequently may not be the cure-all, it may be the spark that sets off other local development activity.

It's not just industrialization that is going to get these areas on their feet and moving again. The type of industry introduced into an area is even more important. New industry should help solve local problems of unemployment and underemployment.

The Economic Research Service recently completed a survey of the impact of new industry on an eight-county area in northern Arkansas.

In 1960, a large apparel plant opened in Gassville and, until 1963, was the single major manufacturing firm in the area.

There were 750 jobs in the shirt factory—and almost all of them were jobs to be handled by women. Until they began working in the factory, the women had not been considered part of the labor force of the area—having never been included in employment figures. Thus, while the plant brought new jobs and larger incomes to some families, its coming created few jobs for the unemployed men.

During 1960-1963, unemployment in the eight-county area rose 34 per cent, although the population remained almost unchanged. Statewide, unemployment rose 1.2 per cent. The unemployment rate had been low before the plant was established. More persons were in the labor force and the turnover in covered unemployment was high after the plant began its operations.

Men were still unemployed, or underemployed, involved in part-time farming at home, and depending on the "lady of the house" to make a major contribution to their subsistence living.

The women's employment has brought an increase in the area's income which has enlivened the economy. This is making the area more attractive to other companies which will, in time, provide greater opportunity for the total population. (6)

Johnny Often Can't Read Because Open Road Is His Only Classroom

When the school bell rings this fall, many of the Nation's 140,000 migratory children won't hear it.

About 50,000 of them will be on the road from October to May, traveling with a migrant parent from one farm job to another.

Some of the other 90,000 youngsters may miss the first few weeks of school because they haven't returned to home base after following the crops all summer.

No other group of American



children has fewer schooling opportunities and a lower educational level than these migrant children.

About half of all migratory households have children under 14 living with them—totaling about a quarter of a million youngsters. Of these, the ones who suffer the most from inadequate schooling belong to the one out of five families who take their children with them as they pursue seasonal farm work.

Schooling for many of these migrant children is part-time, at best.

On the road, many of the older children become part of the hired farm labor force. Others serve as daytime baby-sitters for their younger brothers and sisters.

In many cases, the parents have neither the interest nor the ability to help educate their children. And local school authorities are often reluctant to enforce truancy laws for migrant children.

Following the crops means traveling up to 1,000 miles and more away from home. And the farther away the job, the more likely it is that the migratory family head will take the children along.

At the same time, Spanish-Americans and other white migrant workers are more apt to have their children travel with them than nonwhite migratory parents. (7)

Whither the Worker?

Half of the nation's farmers don't hire any workers at all. So where do America's hired farmworkers go for jobs?

To the larger farms—those that sell \$10,000 or more of farm products annually. In 1964, 89 per cent of all expenditures for hired farm labor were on the 27 per cent of farms in the \$10,000-plus gross sales category. (8)

Making the produce terminal produce



Today's fruit and vegetable industry refuses to be boxed-in by tradition. New operational methods have completely changed old fashioned produce terminal markets.

The best word to describe the fruit and vegetable industry today is change. Traditional ways of doing business are disappearing along with the old-fashioned wooden apple and orange crates and the like.

New buying, distributing and selling methods are changing the wholesale market system.

New canning, freezing and processing methods are changing consumer buying habits.

And new bargaining, promot-

ing and wholesaling methods are changing the forces of supply and demand.

Since World War II. The number of farms growing fruits and vegetables has dropped but output per farm has increased to more than make up the difference. Thus total production is up.

Per capita consumption of most fruits and vegetables has remained relatively stable since 1950. But per capita consumption of some items—pineapples and lettuce, for example—has increased considerably.

At the same time, there has been a big shift of preference from fresh to processed foods.

Within the industry, bargaining associations have grown in numbers. In 1964 the total vol-

ume of business, including cooperative participation plans, was \$193 million.

In 1962 agricultural groups spent \$33 million to promote sales of fruits and vegetables.

Marketing orders (state and federal rulings on quality and quantity which become mandatory when approved by a majority of producers) have generally been unsuccessful in maintaining prices and income above competitive levels. They have provided a more orderly flow of higher quality products and thus added strength to average prices received by growers.

Trends in shipping point markets. The number of commercial fresh fruit and vegetable packers, shippers and marketing coopera-

tives decreased 46 per cent during 1955-65, many of them combining with producers to become grower-shippers. Since then this decline appears to be leveling off.

Trends in wholesaling. The wholesale terminal market—that bustling, crowded, truck-congested business area so familiar to city dwellers—has been updated in many cities and moved to clean, new, air-conditioned quarters in the suburbs or out of the heavy traffic area.

It has also changed from a single grouping of almost totally independent business firms to two separate groupings—of independents and of firms affiliated with chains or chain-type organizations. The latter handle the complete marketing process from shipping point to retail for large grocery organizations.

The independent sector now caters primarily to institutions such as restaurants and hospitals. Many of the chain store operations have, in addition to their own terminal outlets, large new suburban packaging and warehousing facilities enabling the chains to bypass the traditional wholesaling process altogether.

Processing. Earnings after taxes of 61 canning firms averaged 1.4 per cent of sales in 1960-64 with yearly average profits ranging from 2.4 per cent of sales in 1960 to 0.1 per cent in 1962.

In 1964 canners obtained 70 per cent of their raw product supplies through contracts with growers. Freezers obtained 75 per cent. Only 8 per cent of canned fruits and vegetables and 9 per cent of those frozen came from land owned or rented by the processors.

Earnings after taxes of 23 freezing firms (weighted to equalize size, product diversification and other differences) averaged 0.9 per cent of sales for the years 1960-64 with yearly average profits ranging from 3.1 per cent of sales in 1960 to 0.0 per cent in 1961.

Dried fruit, as a percentage of

all processed fruits and vegetables, declined from 9.5 per cent in 1947 to 4 per cent in 1964. From 1960 to 1964 profits in the dried fruit industry averaged 0.8 per cent of sales. (9)

How To Lose Money Without Trying: Too Many Slips 'Twixt Bag and Barn

A feed processor with inefficient bagging operations may wind up holding the sack when profits are tabbed.

For every 1,000 tons of feed packaged, he can give away \$200 without even trying, especially if he doesn't spot-weigh his bags.

Rather than risk the chance of a customer getting less than the quantity printed on the tag, a processor may give two to four ounces overweight per bag. It doesn't seem like much, but a steady giveaway of three ounces per 100-pound bag does add up over a year's time.

Too often the wrong size bag can be costly. Bags that are too small may break open in warehousing and require repacking. Too-big bags are expensive and don't make neat packages.

So why not convert to bulk delivery? Some millers report that farmers can save as much as \$7.50

per ton by buying bulk finished feed rather than bagged.

It isn't always possible, of course, to add efficient bulk load-out facilities to a plant setup without major and costly changes.

However, if bag-to-bulk conversion is feasible it is likely to bring sizable savings to more feed manufacturers within a few years. Justification of the switch will depend largely on two factors:

—Is the processor's operation big enough to warrant investment in a well-engineered renovation?

—And how about his location? Is he in an area where customers are equipped for bulk operations? (10)

Ice Cream Sales Hold Up Despite Diet Fads, But Other Milk Products Suffer

Take a big delicious scoop of ice cream. Top it with thick chocolate sirup, rich, fluffy real whipped cream, add nuts and a maraschino cherry.

Plain or fancy, consumption of ice cream per person continues to hold at past years' levels.

But a growing number of Americans are dutifully pushing themselves away from most of the higher-fat dairy products because of their diets. Their changing preferences are partly responsible for a longterm downtrend in sales of butter and cream.

Much of the current decline in all dairy sales, however, can be explained by the sharp rise in retail dairy prices since mid-1966.

Sales of fluid whole milk in selected state and federal milk marketing areas dropped more than 2½ per cent early this year compared with last year.

In January-May 1967 sales of cream were down 2 per cent and sales of milk and cream mixtures were down 5 per cent from the same months in 1966.

Among fluid items, only skim milk products were up—13 per cent—over early 1966 levels. (12)

Lunch Box Special

At the zoo and the baseball park, the best selling peanut is in-the-shell. Elsewhere, peanut tastes run to shelled versions.

Peanut butter leads the list. U. S. output last year was a big lump of 500,000,000 pounds, not counting peanut butter used in candy or cookie-type "sandwiches."

Salted peanuts came off the production line in second place, at 213,000,000 pounds; followed by peanut candy at 180,000,000.

Altogether, nearly 933,000,000 pounds of shelled peanuts were used in various food products. About 374,000,000 pounds were crushed for oil, cake and meal to be used as primary ingredients of feed or industrial products. (11)

Fresh Whole Milk Tops Other Types On Majority of Institutional Menus

What's the cost difference between a meal in an institution on the east coast and one in Wisconsin?

About four cents. At least that's the difference between the reported 23-cent average cost of raw food per serving in Midwest institutions and the 19-cent average cost at establishments in the East covered by a survey of 268 institutions in the two areas.

Whole milk and other fluid milk

accounted for about 13 cents of each dollar spent for raw food (excluding preparation and serving costs) in the total food bill of nine types of institutions.

The institutional survey was conducted jointly by the Wisconsin Agricultural Experiment Station and the Economic Research Service.

The survey included boarding houses, private junior and senior high schools, colleges (both public and private), food service management companies, penal institutions and children's homes.

Depending on the type of insti-

tution, purchases of fluid dairy products ranged between 6 and 22 per cent of annual raw food expenses.

Logically enough, children's homes, nursing homes and hospitals showed the highest per capita consumption of whole milk and 2 per cent milk (milk with 2 per cent butterfat, compared with 3 to 3.25 per cent for whole milk).

Midwest institutions generally used more fluid milk than those in the East, but the reverse was true for evaporated, dry whole and nonfat dry milk.

Fresh whole milk was the type

CONSUMPTION OF MILK PRODUCTS SERVED BY SELECTED TYPES OF INSTITUTIONS ¹

Type of institution	Estimated annual per capita consumption									
	Whole and 2 per cent milk	Skim milk	Chocolate milk	Butter-milk	Half and half	Regular cream	Whipping cream	Sour cream	Condensed or evap. milk	Dry powdered milk ²
	Pounds									
Boarding houses	258.6	7.1	3.2	1.3	3.0	0.4	0.8	0.4	8.0	3.4
Nursing homes	399.5	19.6	0.0	3.4	8.8	0.4	0.2	1.7	9.0	7.4
Hospitals	378.8	32.8	25.8	5.8	15.4	2.3	0.8	0.8	5.6	5.0
Junior and senior high schools (private) ³	334.3	12.7	16.1	0.2	0.2	0.2	0.1	0.1	0.4	0.4
Colleges (state and endowed) ³	368.3	22.8	33.5	3.7	4.9	0.2	1.1	0.2	0.8	0.6
Penal institutions	198.8	0.0	0.0	0.1	0.2	0.2	0.0	0.1	25.2	5.7
Children's homes	415.6	8.4	20.9	0.9	1.7	0.2	0.1	0.4	1.1	5.4

¹ As represented by 184 institutions in the Philadelphia, Baltimore and Washington, D.C. metropolitan areas and 84 institutions in the Madison and Milwaukee, Wisconsin metropolitan areas. ² Dry whole and nonfat dry milk. ³ Per capita consumption of a normal school year of about 36 weeks.



most used by all the institutions surveyed. It accounted for about three-fourths of total weekly milk consumption.

Chocolate and nonfat dry milk ranked next to whole milk in usage.

About 70 per cent of the institutions served their meals cafeteria style. Individual tray service ranked next, with 15 per cent of the meals. Other ways of serving, used to a limited extent, were family-style table service, counter service, and vending machine or buffet style.

Among other findings: Adding together consumption of whole milk and 2 per cent milk, estimated per person consumption in all the institutional groups—except boarding houses and correctional institutions—was more than the U. S. per capita average of 264 pounds in 1966. (13)

Find the Fatty Acid on This Page; It's All Over, But Hard To Notice

They're in his food, his clothes, his car, his house—but he never sees them. The average American comes into contact with them hundreds of times each day—but never knows it.

These invisible wonders are fatty acids. Because they are most often used in the manufacture of other products in which they lose their identity, they are generally unknown to the average consumer. But they're very well known in the fats and oils industry as a promising market outlet for inedible tallow and tall oil.

Last year more than a half billion pounds of inedible tallow and grease and more than a billion pounds of tall oil were used to produce a record 1.1 billion pounds of fatty acids. This was more than double the fatty acid output in 1958. In 1967 production is estimated to rise to around 1.2 billion pounds.

Fatty acids come in all forms and consistencies—ranging in

almost a continuous series from light liquids to dense, waxy solids. Their use is as varied as their form. They go into foods, emulsifiers, soaps, textiles, rubber, plastics, cosmetics and printing inks, to name only a few items. (14)

More Emphasis on Market Research Might Better Heel Tanning Industry

Man and hide have been wrapped up in each other since the day one of our ancestors first slaughtered a primitive beast and covered himself with its skin.

He's been tinkering with the pelts ever since. And he shows no sign of letting up in changing the industry. Some of the current developments are:

—Many tanners feel that their company's profits will be immediately threatened if they do not have top quality hides at an average market price to begin with. So, the top men of the firm devote most of their energies to hide buying. Meanwhile, sales techniques and customer services are not getting enough attention.

—Market research and advertising are also essential to profit and are dependent on each other. But market research and development have been getting relatively little attention from the tanning industry, though it is hard to advertise effectively without knowing the wants and desires of the consumers.

—The trend today is toward product marketing. In the past, commodity marketing was the thing. Tanners were competing with each other in buying hides and selling leather. This meant that the only competitive weapon was price. In this situation, profit margins had to be kept low.

In product marketing, on the other hand, a firm manages its special leathergoods product from the raw material right through the entire marketing system. In this case, a firm which owns its immediate suppliers and buyers can control the finished product much more effectively. Such vertical mergers are happening more and more frequently in the leather industry.

Some specialty leathers are now managed by the same firm all the way from packing plant to shoe retailer. (15)

Texas and Oklahoma Blaze New Trails To Speed Way from Feedlot to Packer

Feed grains and roughage, feeder cattle and calves and water in adequate amounts—these are the basic necessities of life for the cattle feeding industry.

Texas and Oklahoma have plenty of all of them.

Traditionally, the center of cattle feeding has been the North Central Region, but its share of total cattle on feed decreased from 77 per cent in 1950 to 62 per cent

FATTY ACIDS ARE FAT MARKET FOR INEDIBLE TALLOW AND OILS

Item	1958	1962	1966 ¹
	Million pounds		
Fatty acid output	462	785	1,134
Fats and oils used in producing fatty acids:			
Inedible tallow and grease	256	411	583
Tall oil ²	293	720	1,171
Other ³	173	188	198
Total	722	1,319	1,952

¹ Preliminary. ² A byproduct from the manufacture of paper by the sulphate or kraft process. ³ Includes coconut oil, vegetable foots and others.

in 1966, as regional output increased at a slower rate than in other parts of the country.

At the same time, there were sharp increases in the share of the West and Southwest.

The number, size and capacity of feedlots has changed significantly in Texas and Oklahoma since 1955. Texas feedlots with a capacity of 1,000 head or more increased from 61 in 1955 to 245 in 1966. The capacity of these lots increased from a total of 160,000 to 884,000 head.

The ready supply of resources, a rapidly growing population, rising incomes and shifting tastes and preferences for beef in the Southern Plains suggest that cattle feeding will continue its expansion in Texas and Oklahoma, as it is all over the country.

Numbers of cattle on feed increased 124 per cent from 1950 to 1966.

All this growth has brought a new look to livestock marketing.

The predominant change has been the decline of the terminal markets. The proportion of slaughter cattle bought by packers in terminal markets declined from 75 per cent to 37 per cent from 1950 to 1966. By 1964, buying had shifted significantly to direct buying by packers and country dealers. Auction markets also supplied substantial volumes of slaughter supplies by 1964.

The increase of direct marketing has had a definite impact on the other aspects of the livestock and meat economy.

Large numbers of finished cattle are being sold direct from feedlot to packer. Feedlots with 1,000 head or more capacity in 15 selected states were reported, by the National Commission on Food Marketing, to have sold 71 per cent of their finished cattle directly to packers on a liveweight basis in 1964.

Direct methods of selling will likely increase as larger proportions of slaughter cattle originate from the feedlots. (16)

Milestones

Feed manufacturers before 1900 relied mainly on scoop shovels and strong backs to run their mills. Today's feed mills are highly automated push-button operations. But with all the innovations of the past half century, feed equipment manufacturers are still trying to improve machinery to turn out high quality products and at the same time control contamination.

- 1900—First attrition mill designed and patented in U.S.
- 1905—Equipment with electromagnets marketed.
- 1911—Commercial pellet mills manufactured in England.
- 1918—Vertical mixer introduced commercially.
- 1927—First mill use of batch mixing system.
- 1935—Launching of new, improved molasses blending machines.
- 1942—First bulk truck for feed delivery built in California.
- 1946—High molasses pellet extruder developed.
- 1955—First mill use of punch card proportioning system. (17)

Bigger Sales by Food Manufacturers Make for More Profits After Taxes

Total net incomes—profits after taxes, that is—of 153 leading food manufacturers amounted to nearly \$1.1 billion in 1966. This represented a 13-per cent rise over the 1965 level. Much of the increase in profits was due to increased sales.

Net income as a per cent of sales was higher by 0.1 to 0.3 of a percentage point in four of the five food groups—baking, meat-packing, sugar and "other" products. Profits for dairy manufacturers showed no change between 1965 and 1966.

Another method of gauging profits is net income as a per cent of net assets—that is, stockholders' equity. By this measure, profits were up for all groups except dairy manufacturers. Net income of the 13 firms in the dairy products group declined from 12.5 per cent of net assets in 1965 to 12.4 per cent last year.

The general upswing in profits held true for leading manufacturers of nonfood farm products—whose after-tax incomes totaled about \$1.2 billion in 1966.

Net income as a per cent of sales was up 0.2 to 0.4 of a percentage point from 1965 for leading brewers, distillers and textile manufacturers. It declined slightly for the firms manufactur-

ing tobacco and clothing and apparel. Net income as a per cent of stockholders' equities was higher last year for leading firms in all these industries except clothing and apparel. Their ratio of net income to net assets decreased from 16.3 per cent in 1965 to 15.9 per cent in 1966.

This profit picture was obtained from the First National City Bank of New York. (18)

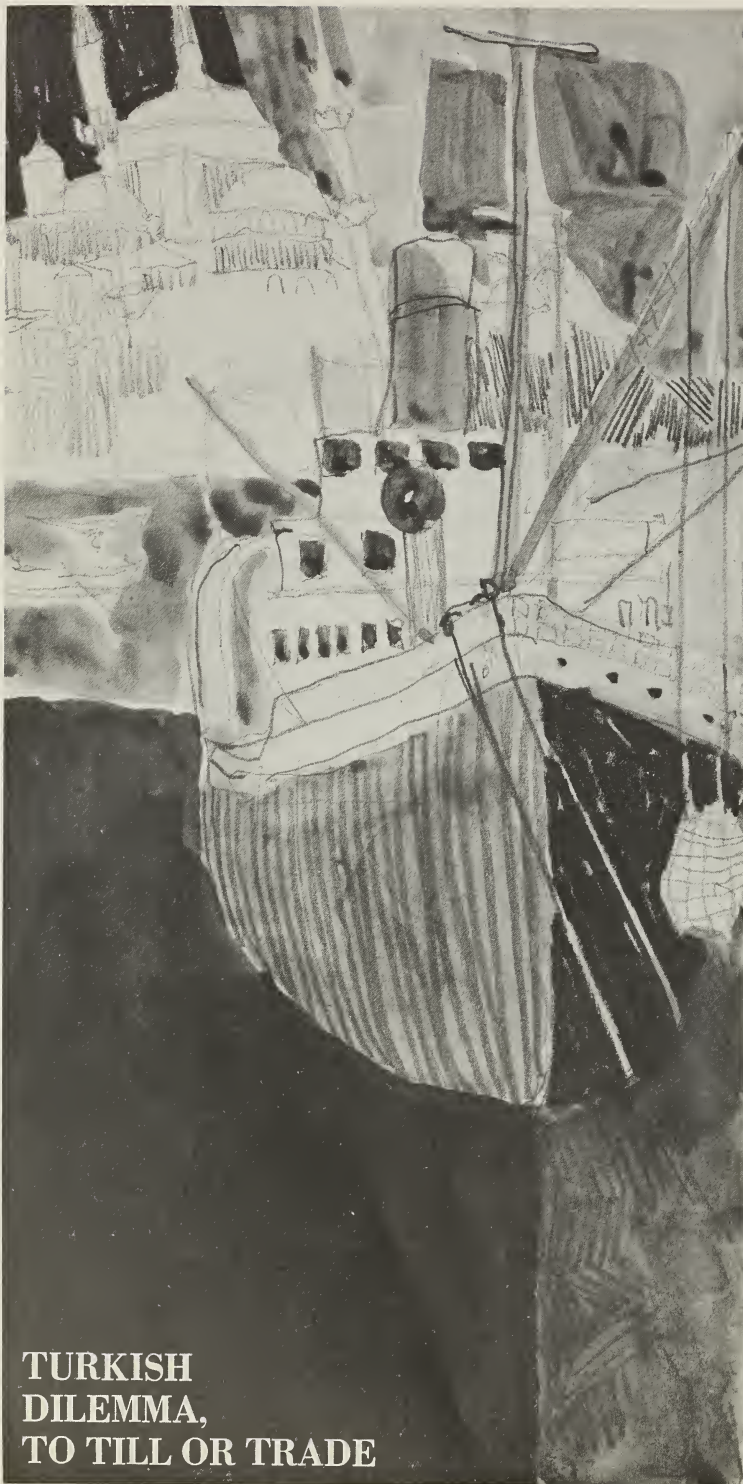
N. Y. Cotton Exchange Handles Futures In Florida Frozen Orange Concentrate

Interested in futures trading of Florida frozen orange concentrate?

Futures contracts for this currently abundant commodity have been established on the New York Cotton Exchange. The contracts represent agreements to buy or sell specified quantities and qualities at stated prices for delivery at a later date.

This type of trading, which requires margin deposits and brokerage fees, makes possible a degree of protection against price fluctuations through hedging.

Futures trading in concentrate began last October and has been expanding. Future volume will depend on adaptability of the product itself to the basic requirements of futures trading, and also on industry participation and speculative interest. (19)



TURKISH DILEMMA, TO TILL OR TRADE

In its rush toward development, Turkey is now short on cropland and will be turning to the world commercial market — including U.S.—for some of its food needs.

Turkey is on the median strip of the international economic highway.

It has moved out of the lane in which the least-advanced countries are moving, but has not crossed over into that of the most-developed nations. And, at its present economic pace, it is expected to stay in this relative position.

In the last 20 years, Turkey has nearly doubled its agricultural acreage, largely through mechanization. As expansion now appears to have overshot the point of maximum rational use, some cutback can be expected.

Thus Turkey and its 33 million people will have to turn increasingly to foreign suppliers—including the United States—for some farm commodities.

The country has done best, and is likely to do even better, in producing, and exporting, agricultural specialties such as tobacco, sugar, cotton, tea, fruit and nuts.

For wheat, feed grains, meat and vegetable oils, however, Turkey will probably be relying more and more on the world commercial market.

The U.S. will face strong competition among other would-be suppliers.

In recent years, we have been supplying about 60 per cent of Turkey's total agricultural imports. But, depending on year-to-year conditions, Turkish farm imports have fluctuated widely—from \$46.4 million in 1960 to \$128.8 million in 1963. The U.S. share in these two years was \$36.4 million and \$62.5 million.

Looking ahead to 1970 and 1975, what is the outlook for U.S. exports to Turkey of the commodities that will be needed the most?

Wheat. Turkey's chief food crop is wheat; also one of its main imports. Bread is usually served with every meal, and per capita consumption is among the highest in the world.

Wheat production rose sharply from 1948 to 1953, along with an acreage increase sparked by mechanization. (Tractor numbers rose from 1,800 to 35,600.)

Since then, there has been little increase in wheat area, and Turkey has been a net wheat importer every year but one since 1956.

Not much change in area or production is projected through 1975, though new seed varieties could raise yields beyond present expectations.

It now looks as though Turkey's 1975 wheat imports may be quadruple those of 1965 unless balance-of-payments problems force the country to restrict imports or raise bread prices to reduce demand.

The U.S. has supplied almost all of Turkey's wheat imports to date. Most of them have been under Title I of Public Law 480 programs (sales for foreign currency) in which Turkey was the first participant, in 1954.

What the U.S. share of the Turkish market may be in 1970 and 1975 can only be conjectured, because no one knows what the trade pattern would have been in the absence of our exports under P.L. 480.

Too, the degree of competition the U.S. faces in the future will depend on the level of world exportable supplies. This, in turn, will depend on such factors as how self-sufficient India may become, and whether the USSR will be an importer or exporter in the coming decade.

Canada and Australia will offer strong competition. France—a member of the European Economic Community (EEC) to which Turkey is associated—is a probable bidder, too.

Turkey's millers, bakers and consumers have become accus-

tomed to high-quality U.S. wheats. But as the country enters the commercial market, trade balance problems will probably force it to be more of a "bargain" buyer than a "quality" buyer.

All things considered, the U.S. is projected to supply approximately 50 per cent of Turkey's future wheat imports. This would mean more than a doubling of our wheat exports to Turkey by 1975—to 750,000 tons from less than 350,000 in 1965.

Vegetable Oils. Nearly all of Turkey's edible oil needs between 1955 and 1965 have been met by imports of U.S. vegetable oils—mainly soybean oil—under P.L. 480.

Increased imports of edible oil have enabled Turkey to expand its

margarine output rapidly and thus raise total consumption of vegetable oils. And it was able to re-institute olive oil exports in 1962 for a substantial foreign exchange gain.

The world market for olive oil, however, will depend primarily on the EEC application of its Common Agricultural Policy (CAP) on fats and oils, and Turkey's status as an associate member.

Western Europe is the biggest buyer of U.S. soybeans and soybean cake and meal. Because of its expanding poultry and livestock industry, the area is expected to be taking more of these U.S. commodities.

With increased exports of soybean meal and cake, we will have larger exportable supplies of soy-

UPTREND IN U.S. EXPORTS TO TURKEY PROJECTED FOR NEXT DECADE

Commodity and year	Production	Imports	Imports from U.S.
1,000 metric tons			
Wheat			
1960	6,335	372	372
1965	6,374	348	348
1970	6,786	716	350
1975	6,991	1,514	750
Feedstuffs			
1960	6,200	0	—
1965	5,036	11	—
1970	5,352	1 300	225
1975	5,458	1 600	450
Meat			
1960	352	—	—
1965	386	0	—
1970	419	20	²
1975	463	40	²
Fats and oils			
1960	276	39	39
1965	338	14	14
1970	385	30	20
1975	433	46	30

¹ Coarse grains. ² Not projected, as U.S. expected to be insignificant supplier.
Source: School of Business Administration and Economics, Robert College, Istanbul, Turkey, Long Term Projections in Turkish Agriculture (March 1967).

bean oil. But the EEC countries may also become sizable exporters of soybean oil processed from the imported soybeans.

Assuring that U.S. soybean oil is likely to be available for export under some form of government concessional terms through 1975, we can therefore expect the U.S. to remain an important supplier of the Turkish import market.

Feed grains and meat. Up to now, Turkey has been a small net exporter of meat and coarse grains. By 1970, however, this trade pattern will probably be reversed.

Because of Turkey's precarious trade balance and the meat preferences of its people, there is little likelihood that they will import much U.S. quality meat. There is, however, some potential for our variety meats.

As for feed grains, Turkey—along with other deficit-producing countries of the world—will probably continue to turn to the U.S. to meet import needs.

Though our share of Turkey's purchases will be affected by the EEC's import policies, it now appears probable that we will supply about two-thirds of Turkey's feed grain imports in the 1970-75 period. (20)

Commodity Shipments Under P.L. 480 Are Major Factor in Economic Aid

Commodities . . . capital . . . technical aid.

These are the three forms in which agriculture of developing countries is given an assist by the more highly-developed nations.

Of the three, commodity assistance—food and fiber—is provided on much the largest scale.

The U. S. is now supplying about 94 per cent of total agricultural commodity aid.

Most of this U. S. food and fiber aid is provided under Public Law 480—the Food for Peace Legislation first enacted in 1954 and revised in November 1966. Through

Foreign Spotlight

CANADA. The St. Lawrence Seaway is scheduled to receive \$100 million worth of improvements. Work started June 9. The canal will be strengthened and broadened. A new $\frac{3}{4}$ -mile link will bypass the city of Welland. This should speed up canal traffic and eliminate delays in land travel caused by the raising and lowering of railroad and highway bridges.

SPAIN. The U. S. is not the only country expecting a large wheat crop. Spain expects to have its second good wheat crop in a row. A record of more than 5 million metric tons may be reached. June 1 stocks were estimated at 2.5 million tons, giving Spain a supply of 7.5 million tons for 1967/68. Domestic consumption will probably not exceed 4.3 million tons, leaving 3.2 million tons for export and carryover.

GREECE. Greece exported barley for the first time this year. More than 200,000 metric tons may be available for export next year.

MOZAMBIQUE. Work is scheduled to begin in August or September on the Cabora-Bassa project, a series of dams to provide flood control and irrigation on the lower Zambezi River. Electricity generated will be sold mainly to South Africa. (22)

1966, \$15.7 billion worth of agricultural commodities had been shipped abroad under P. L. 480.

During the same period, another \$2.2 billion worth of food and fiber was shipped under the Mutual Security program.

(The Mutual Security commodity program was discontinued in 1961. Since then, AID food shipments have consisted of grants and donations.)

Most Food for Peace shipments have been under P. L. 480's Title I, whereby the recipient country pays in its own currency.

About two-thirds of the foreign currencies we collect from the beneficiary countries go back to them as loans or grants for economic development. Of this

amount, the major part consists of loans to foreign governments.

The other third of the foreign currencies we receive generally is used to pay for our own activities abroad, such as embassy expenses, or for common defense programs within a recipient country.

Title I agreements now include those formerly under Title IV—sales under long-term dollar credit arrangements. These long-term credit sales have increased steadily from initial sales of \$42 million in 1962 to shipments worth \$226 million in 1966.

Title II (commodity grants) and Title III (food donations) are now combined by the new P. L. 480 under Title II. Aid under these programs has not varied much in the past decade.

During the last five years, net P. L. 480 assistance (i.e., minus foreign currencies for U. S. uses, common defense, and net loan repayments) has ranged from \$1.2 billion to \$1.6 billion annually. It has accounted for nearly half of our total food and nonfood economic aid.

Food aid to underdeveloped nations from sources outside the U. S. has been small—less than \$100 million a year, mostly from Canada (see page 4). (21)

Cotton and Tobacco Set Pace For Record Farm Exports in Fiscal 1967

Exports of U. S. farm products last fiscal year moved 2 per cent ahead of the 1965/66 level to reach a record \$6,766 million.

Sharp rises of 53 per cent in cotton shipments, 41 per cent in tobacco, and 33 per cent in rice spurred the increase. Feed grains (mostly corn), wheat, fruit, animals and animal products registered declines.

A sharp drop in exports under government programs reduced wheat and flour shipments to an estimated \$1,309 million—7 per cent under 1965/66—though commercial dollar sales rose. (23)

The Food Export Explosion: Trade From North America Tops All Others

Who would have dreamed fifteen years ago that international trade in grains would almost triple, that soybean exports would show such tremendous growth or that major areas of the world would shift from net exporters to net importers of agricultural products?

Yet this is what has happened since 1950. World trade in cereal grains has jumped from 40 million tons to 114 million tons. World cotton trade has increased approximately 50 per cent over pre-World War II levels and tobacco trade has gone up about 80 per cent.

At the same time the U.S. share in this expanded trade has increased substantially. Foreign demand now calls for more U.S. wheat, rice, feed grains, livestock products, oilseeds, and oilseed products and a long list of other specialty products.

Major trade shifts. From 1934 to 1938 only Western Europe was a net importer of food grains. At that time Latin America topped all other regions in volume of exports followed by Eastern Europe, North America, Oceania, Asia and Africa in that order. By 1966 North America was by far the largest world exporter of wheat and rice, accounting for some 85 per cent of the total volume. Food grains from Oceania also have increased but Latin America has just managed to keep its head above water as a net exporter.

Western Europe continues as a net importing region, taking about 23 million tons of food grains annually. But changes in population and agricultural production have shifted Asia, Eastern Europe and Africa from the role of net exporters to net importers. Asia has gone all the way from net food grain exports of 2 million tons before World War II

to net imports of 30 million tons in 1966.

Such shifts reflect the world's growing dependence on the North American continent and Oceania for its agricultural products. These are the areas from which future growth in international grain trade is expected to come. Total volume of such trade will largely depend on the ability of the United States, Canada, Australia, Argentina, South Africa and a few other exporting nations to meet world demands.

Economic development. The long-range outlook for agricultural exports in large part will be determined by the less-developed countries throughout the world. Recent studies have shown that in helping to promote economic development in these countries, the United States' Food for Peace Program also helps develop commercial farm product markets.

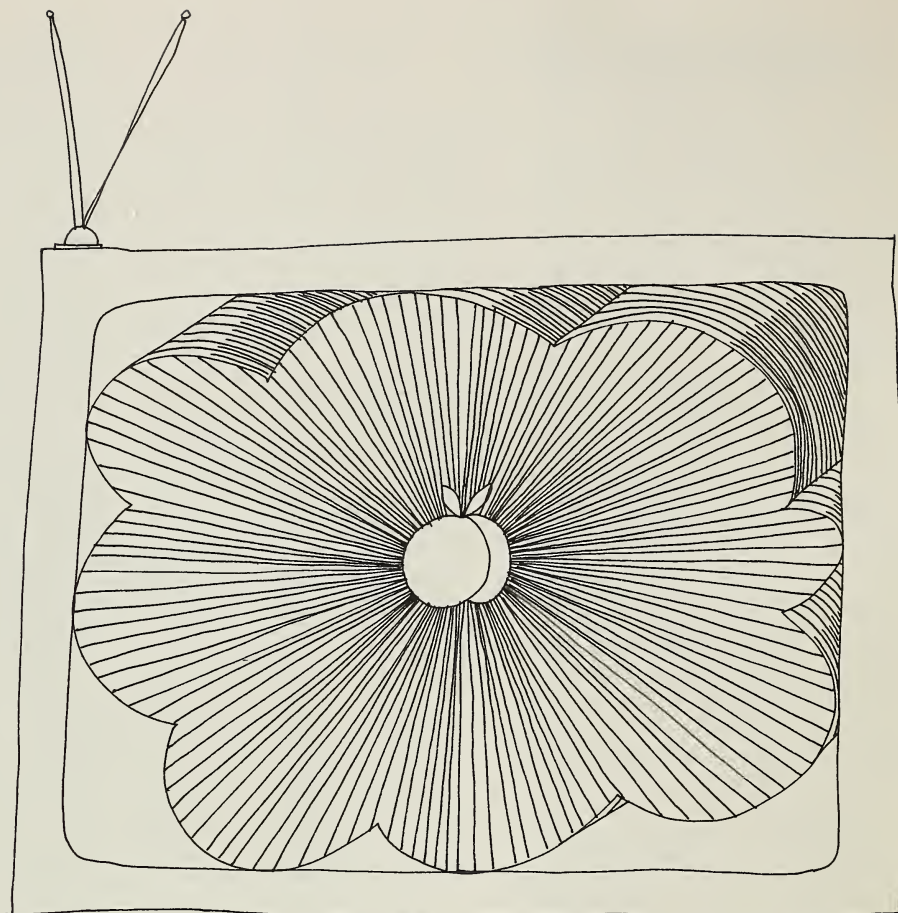
For example, Spain, Israel, Greece and Taiwan—four countries that were principal recipients under the aid program—have each made significant gains in economic growth. Concurrently, commercial purchases of agricultural commodities by these countries from the U.S. alone have increased from an average of \$21 million in 1955-60 to an average of \$180 million in 1963-65.

The road ahead. The expansion of consumption and trade in wheat and feed grains during the 1950's took place while stocks were excessive. Since 1962 world consumption has tended to exceed production and stocks have been significantly reduced.

Recent developments indicate that world agricultural trade is moving into a period in which market forces will be far more important than at any time in the past 15 years. Already strong demand for many commodities has made it desirable for the United States to ease restrictions on domestic production of some 1967 crops and other exporting countries are doing the same. (24)



MADISON AVENUE: FARM STYLE



How effective can farm product promotion be? Agriculture's researchers take their cue from the grey flannel suit boys to find out what will sell, advertising-wise.

When you buy an apple is it because the apple looks good, because it's bargain priced or because you just wanted to buy it?

Or is it perhaps because of an advertisement you read or a commercial on television or radio?

If it is hard to determine why you buy something, it is infinitely more difficult for an advertiser to determine how his campaign affects your decision. And this is especially true of farm products.

The purpose of advertising is, of course, to increase sales of a

product to a point of maximum profit per unit. Solid proof that it does this is another matter since advertising is only one part of the total sales picture.

Some typical methods of measuring advertising effectiveness include measurements of sales before, during and after a campaign, matched markets, comparison of past sales and prediction of future sales and isolating sales components.

Before, during and after. A sales base is established before undertaking any advertising. Base sales of a product are then compared with sales during and after the promotion. Presumably any sales differences are due to the advertising.

This method usually won't work

for such items as most fresh produce or livestock products where rapid changes in quality, supply and price could distort results.

Matched markets. Two or more cities are closely matched as to population, predominant religious affiliation and national origin of people, per capita income, types of industries, geographic location and similar traits.

For control purposes, sales of the product are measured in one city—without advertising—while extensive promotions are carried on in the matched market. Any sales differences between cities are credited to advertising.

In a recent matched markets test of cottage cheese sales, however, substantial changes took place—especially in the level of

employment—between the cities which nullified many findings.

Comparison and prediction. Analysis of data on sales and other factors—including advertising—which might affect sales of a product is used to predict future sales without advertising, with advertising continued at the same level and with it increased.

Sales of lamb in Cleveland, Ohio were tested in this manner. Researchers gathered records of past sales of lamb in the city and correlated them with a number of items related to sales.

Such things as weather conditions, economic conditions, month of the year and so on, were included with particular attention paid to previous lamb promotions.

The results of using this technique in Cleveland were deemed successful. But it requires a long series of historical data on relevant variables and such data are frequently unobtainable.

Isolating sales components. Researchers, working closely with distributors and advertising agencies, are able to test individually many of the components that go into the sale of a product.

For example, they can isolate the effect of differences in size and type of store on the sale of corn; or the effect of competitive meat sales on the sale of poultry.

Then, when that product is advertised, they can assign changes in sales to advertising—other factors being held constant.

Other techniques. An advertiser can hire someone to determine how many people see his advertisements. He can survey the public to find out how much the advertising changed people's minds about his product.

But there is still no clear-cut way he can know that advertising alone caused the change.

That is to say, if you just don't like apples or you happened to find a worm in your last one or you can't afford apples at current prices, no amount of advertising is likely to make you buy. (25)

Billion-Dollar Bouquet

A best man's boutonniere isn't very big. But add it to the rest of the wedding flowers and to those used on other occasions, funerals especially, and it becomes part of a bouquet worth over \$1.1 billion.

That's about the amount of our annual bill at the retail florist. Split nationwide, it comes out to around \$5.50 per person.

We turn to the retail florist for about 85 per cent of all our needs in the floral line. Cut flowers account for about two-thirds of our bill. The rest is for garden supplies, plants, nursery stock and landscaping services.

Most of the nation's 22,500 florist shops are small and owner-managed. Altogether they provide 100,000 jobs and retail the floral crops of over 20,000 growers. (26)

U.S. Appetites Lean Toward Fat, As Annual Servings Approach 50 Pounds

Jack Sprat may eat no fat, but his wife and fellow Americans are eating more of it than ever before.

Use of fats and oils in the U.S. last year averaged out to an all-time record of 48.6 pounds per person. It amounted to 9.4 billion pounds in total.

We consumed more shortening, more margarine and more cooking and salad oils during the year. In fact, we ate enough fat and oil in this form to more than offset smaller portions of butter and lard.

The per person score for 1966 was: 15.9 pounds of shortening, up nearly 2 pounds from 1965; 14.1 pounds of cooking and salad oils, an increase of almost 1 pound; and 10.5 pounds of margarine, about a half-pound increase.

On the downside, our consumption of butter amounted to 5.7 pounds a person, 0.7 pound less than in 1965. We used only 5.6 pounds of lard as such, 0.8 pound less than the year before. (27)

Florida-California Lemon-Lime Crops Give Comfort to Ade Lovers All Over

Lemonade lovers of all ages can relax, secure in the knowledge that they will be well-supplied with fruit for their favorite thirst-quenching beverage.

Ditto limeade lovers.

The 1966/67 crop of lemons in California and Arizona was estimated at 18.8 million boxes on July 1—19 per cent more than the 1965/66 crop and 21 per cent above the 1960-64 average.

The 1967/68 forecast for Florida limes is 500,000 boxes—19 per cent larger than in 1966/67 and 21 per cent above the 1960-64 average.

California lemon production shows a 16 per cent increase while Arizona's crop, now completely harvested, was up a whopping 40 per cent. Harvesting of the California crop will continue into the fall.

So far this season fresh use of lemons is up moderately over last year but there is a 47 per cent increase in processing use (in single-strength juice, lemonade concentrate, concentrated lemon juice and for other purposes). Exports of both lemons and limes from November 1966 to May 1967 have been 1.8 million boxes, up slightly from 1965/66.

Packinghouse prices for lemons have averaged moderately higher in 1967 than last year.

Early lime harvest is running well above last season. Limes are harvested and marketed throughout the year but in greatest volume during the summer. Lime prices are extremely erratic with the lows generally in the summer and early autumn.

Most limes are marketed in fresh form though substantial quantities have been processed in recent years.

Apparently, with lemon and lime growers—as with Junior's lemonade stand—when business goes sour, it's good. (28)

MARKETING AND UTILIZATION OF COTTON MILL WASTE. Shelby H. Holder, Jr., Marketing Economics Division. ERS-334.

Over one-half billion pounds of cotton mill waste, valued at more than \$50 million, entered marketing channels in the U.S. in 1965. Most of this waste originated from the various stages of the cotton manufacturing process in U.S. cotton mills. However, imports also added significantly to the total supply.

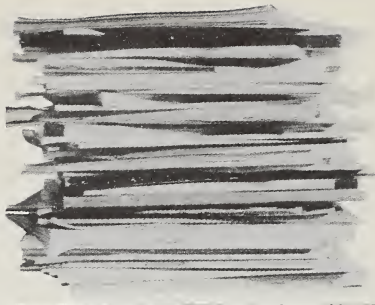
The purpose of this study is to create a better understanding of the importance of this industry in the American cotton economy. Specific objectives were to determine the primary sources of supply, including imports, and major outlets; the chief methods of marketing and handling; and the primary manufacturers that use waste as a raw material, and characteristics of their operations.

FARMERS' EXPENDITURES FOR PESTICIDES IN 1964. P. Andrienas, T. Eichers and A. Fox, Farm Production Economics Division. AER-106.

This study is based on a survey of farmers whose sales represented 90 per cent of total agricultural sales in the United States. These farmers spent \$456 million on pesticides in 1964. Supplementary information indicates that farmers who operated small farms—not included in the survey—spent an additional \$58 million on pesticides.

AN ECONOMIC APPRAISAL OF COTTON ALLOTMENT TRANSFERS IN SOUTH CAROLINA. C. P. Butler, Farm Production Economics Division in cooperation with the South Carolina Agricultural Experiment Station. AE 298.

Results of this analysis serve a useful purpose in appraising program alternatives for individual farms and estimating the aggregate effects of optimum adjust-



recent publications

The publications listed here are issued by the Economic Research Service and cooperatively by the state universities and colleges. Unless otherwise noted, reports listed here and under Sources are published by ERS. Single copies are available free from The Farm Index, OMS, U.S. Department of Agriculture, Washington, D.C. 20250. State publications (descriptions below include name of experiment station or university after title) may be obtained only by writing to the issuing agencies of the respective states.

ments in response to changes in cotton allotments and prices.

THE 1964-65 CROPLAND CONVERSION PROGRAM—A DESCRIPTION AND APPRAISAL. James Vermeer, Farm Production Economics Division. AER No. 111.

This experimental program provided payments to farmers for converting land from row crops and small grains to conserving uses under five-year agreements. Nearly all land in the program was converted to pasture. More than three-fourths of the farmers participating stated their intention to leave the land in grass even after the agreements expired. Also, they expected their incomes to be higher in 1970 than they would have been in the absence of such a program.

PROJECTION OF FARM NUMBERS IN MONTANA, 1975-2000. LeRoy C. Rude, Farm Production Economics Division in cooperation with the Montana Agricultural Experiment Station. Mont. Agri. Expt. Sta. Bul. 608.

The number of farms has been declining in Montana as it has in the rest of the country. Such a decline results in significant adjustment problems for rural business firms, governmental units and institutions. A projection such as this will serve to identify the relative severity and location of likely future problems associated with further adjustments in farm numbers.

ANNOTATED BIBLIOGRAPHY OF FLORICULTURE AND ORNAMENTAL HORTICULTURE — MARKETING AND OTHER ECONOMIC INFORMATION. Cleveland P. Eley, Marketing Economics Division. ERS-337.

This bibliography includes all research reports and articles pertinent to marketing and other economic information for floriculture and ornamental horticulture published after June 1959.

COSTS OF STORING AND HANDLING FARMERS' STOCK PEANUTS IN COMMERCIAL FACILITIES, 1965-66. N. A. Wynn, Jr. and Donna Reimund, Marketing Economics Division. ERS-352.

This report analyzes the costs of handling and storing farmers' stock peanuts in commercial facilities during fiscal year 1965-66.

Costs were developed for four primary services: cleaning and drying, receiving, loading out and storage.

Generally, warehouse costs averaged higher than shellers' costs for all services performed. For example, average standardized storage cost per ton-month-stored ranged from \$0.514 for Virginia-North Carolina shellers to \$1.461 for Virginia - North Carolina warehouses.

THE WESTERN HEMISPHERE AGRICULTURAL SITUATION: REVIEW OF 1966 AND OUTLOOK FOR 1967. Western Hemisphere Branch, Foreign Regional Analysis Division. ERS-For. 187.

The value of agricultural trade of Hemisphere countries was up in 1966, with an estimated increase of 6 per cent for exports and 3 per cent for imports. The outlook is for some continued rise in agricultural trade in Western Hemisphere countries during 1967.

The report covers the agricultural situation and foreign trade for the various countries of the Western Hemisphere, excluding the United States.

THE AFRICA AND WEST ASIA AGRICULTURAL SITUATION: REVIEW OF 1966 AND OUTLOOK FOR 1967. Africa and Middle East Branch, Foreign Regional Analysis Division. ERS-For. 186.

African agricultural production in 1966 did not quite equal that of the previous year. This marks the second time that per capita production has been below the 1957-59 average.

In West Asia, drought and badly timed rainfall affected most of the agricultural production of the area. Production in Turkey was up, however, so much so that the region's index of total agricultural production in 1966 rose

nearly 4 per cent from that of 1965.

The report covers agricultural production and foreign trade for the various countries of each region.

THE EUROPE AND SOVIET UNION AGRICULTURAL SITUATION: REVIEW OF 1966 AND OUTLOOK FOR 1967. Europe and Soviet Union Branch, Foreign Regional Analysis Division. ERS-For. 185.

Agricultural production in Europe and the Soviet Union was at a record level in 1966, with increases in all three major areas—Western Europe, Eastern Europe and the Soviet Union. The percentage increase in output over 1965 in the Soviet Union was more than twice as great as the increases in Eastern and Western Europe.

The report covers the economic situation, agricultural production and policy, foreign trade and outlook for the various countries of the regions.

THE FAR EAST AND OCEANIA AGRICULTURAL SITUATION: REVIEW OF 1966 AND OUTLOOK FOR 1967. Far East Branch, Foreign Regional Analysis Division. ERS-For. 188.

This report covers the general agricultural situation of the Far East and Oceania and also takes a look at economic conditions,

agricultural production and trade for individual nations in the regions.

THE FAR EAST AND OCEANIA AGRICULTURAL DATA BOOK. Riley H. Kirby and Boyd A. Chugg, Foreign Regional Analysis Division. ERS-Foreign 189.

This report provides current and historical data on production and trade of agricultural products by countries of the Far East and Oceania.

FARM-RETAIL PRICE SPREADS FOR DAIRY PRODUCTS: 1939-66. Robert E. Freeman, Marketing Economics Division. MRR No. 798.

This study explores the basic changes in milk production and marketing which underlie the changes in farm and retail prices and in the farm-retail price spreads. The emphasis is on butter, fluid milk, evaporated milk, cheese and ice cream.

COSTS OF TRANSPORTING BULK AND PACKAGED MILK BY TRUCK. Orval Kerchner, Marketing Economics Division. MRR No. 791.

Modern highways and truck equipment have made it easier to transport milk over long distances.

This study deals with costs of transporting bulk milk long distances and costs of transporting packaged milk.

Numbers in parentheses at end of stories refer to sources listed below:

1. W. V. Dexter (SM); 2. G. R. Rockwell and R. L. Rizek, Production and Consumption of Beef in the United States (M); 3. W. D. Goodsell, J. R. Gray and M. J. Belfield, Costs and Returns: Western Livestock Ranches, 1966 (M); 4. P. E. Strickler, Machines and Equipment on Farms With Related Data, 1964 and 1959, Stat. Bul. No. 401 (P); 5. Farm Production Economics Division, Changes in Farm Production and Efficiency: A Summary Report, 1967, Stat. Bul. 233, rev. June 1967 (P); 6. M. F. Jordan, Rural Industrialization in the Ozarks: A Case Study (M*); 7. A. Raption, Domestic Migratory Farm Workers (M); 8. V. W. Davis (SM); 9. Marketing Economics Division (SM); 10. C. J. Vosloh, Walk With Me (M); 11. Fruit Situation, TFS-163 (P) and A. Paul, Futures Trading: An Industry Decision (S); 12. Dairy Situation, DS-316 (P); 13. H. H. Moede, R. A. Cropp and T. F. Graf, Milk Consumption and Food Service Patterns in Selected Eastern and Midwestern Institutions, MRR-800 (P); 14. G. W. Kromer, "Fatty Acids: An Expanding Market for Fats and Oils," Fats and Oils Situation, FOS-237 (P); 15. J. W. Thompson, Some Management Considerations for Tanners (S); 16.

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Speech (S); published report (P); unpublished manuscript (M); special material (SM); *State publications may be obtained only by writing to the experiment station or university cited.

OFFICIAL BUSINESS

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Tea Totaling

Total tea consumption in the U.S. during 1966 amounted to 133 million pounds—or 0.7 pound per person. Back in 1961, our total tea intake was only 110 million pounds—or 0.6 pound per person.

The increased use of instant tea is one reason for the 17-per cent gain in total tea consumption since 1961. Instant teas represented only 8 per cent of the market in 1961, but comprised about 26 per cent of total U.S. retail tea sales in 1966.

The share of the market supplied by tea bags slipped from 59 per cent to 54 per cent during 1961-66, while loose or packaged tea's share dropped from 33 to 20 per cent. (29)

The Eggless Breakfast

People just do not eat as many eggs as they used to. Per capita consumption has fallen more than 10 per cent in the last 10 years. Why?

Mainly it's because of the parallel trends to skimpier breakfasts and less strenuous work.

Most people who eat eggs have them at breakfast. The bulk of all shell eggs are consumed then. But changes in living and working patterns during recent years have swayed many away from the breakfast egg.

Some people do not feel the need for a large breakfast; others are dieting. More and more working wives have switched to prepared breakfast cereals for themselves and their families, and they use fewer eggs in baking than non-working wives. (30)

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